

# Mineral Industry Surveys

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## LEAD IN AUGUST 1999

Mine production, based upon the net quantity of lead recovered in the smelting of concentrate, increased by 11% in July compared with production in June. Data on mine production in August were not available at the time of publication. Following the brief summer shutdowns in July, secondary refinery production returned to a level slightly higher than that of June 1999. Reported consumption remained essentially unchanged in August.

According to *Platt's Metals Week* published quotations, the average North American producer price and the average London Metal Exchange (LME) cash price (U.S. dollars) increased by 0.04% and 1.45%, respectively, in August.

The lead supply remained tight in North America as continued strong demand in the battery sector placed additional pressure on the limited supply of lead (American Metal Market, 1999). The limited supply was due, in part, to the environmentally related production decrease at the Torreón primary smelter-refinery of Peñoles Industrias SA de CV in northern Mexico. Peñoles had been required by the Mexican Government to reduce its production by about 50% in late May, pending the resolution of environmental problems at a waste site near the Torreón plant. Although the company recently reported that it was ahead of schedule in completing the environmental clean-up that would allow it to return to previous production levels, traders remained doubtful that Peñoles would be able to return to those levels at Torreón in the near future (Metal Bulletin, 1999a; Platt's Metals Week, 1999b).

National Defense Stockpile cash disposal (sale) of lead in August was 4,953 metric tons (5,460 short tons). Sale of lead thus far in fiscal year 1999 (October 1998 through August 1999), was 49,807 metric tons (54,903 short tons).

ASARCO Incorporated, New York, reportedly is conducting tests to evaluate the possibility of converting its custom primary lead smelter at East Helena, MT, to a secondary copper smelter. The conversion could take place by the end of the year if the tests results support such a conversion. A significant portion of the

concentrate feed to the East Helena smelter currently is imported. All of the bullion produced at the smelter is being exported (Ryan's Notes, 1999).

The U.S. Environmental Protection Agency (EPA) recently issued a notice requesting information from interested parties, particularly the U.S. regulated community, concerning transfrontier movement of wastes, including certain lead metal wastes, to recycling operations within the member countries of the Organization for Economic Cooperation and Development (OECD). The information will be used by the EPA and other Federal agencies in developing U.S. positions, with respect to potential harmonization of OECD Council decisions on the transfrontier movement issue with those of the Basel Convention (U.S. Environmental Protection Agency, 1999b).

The EPA also issued a proposed rule that would reduce the reporting threshold for lead and lead compounds under Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) and Section 6607 of the Pollution Prevention Act of 1990. The EPA believes that lead and lead compounds are persistent, bioaccumulative toxic chemicals that warrant lower reporting thresholds than those currently established under EPCRA Section 313. The proposal also included a limitation on the reporting of lead when contained in certain alloys, as well as modifications to certain reporting exemptions and requirements for lead and lead compounds (U.S. Environmental Protection Agency, 1999a). The EPA was to have accepted comments on the proposal until September 17, 1999. However, the Lead Industries Association, Inc. has filed a request with the EPA to extend the comment period to 180 days in order to adequately assess how the proposed regulation would impact small business (International Lead Zinc Research Organization, Inc., 1999).

Union Itok International AG (UII), a joint-venture company consisting of Australia's Union Mining Ltd. and Iran's Itok Engineering and Technology Company, announced that it will further explore and develop the Mehdiabad zinc-lead deposit in

central Iran, under a recently signed agreement. The joint-venture agreement is subject to the approval of the Iranian Ministry of Mines, but is expected to be finalized in about 3 months. UII compares the potential of the Mehdiabad deposit to that of Australia's Century and McArthur River Mines. Mehdiabad is estimated to contain nearly 97 million tons of total resources, at a grade of 10.1% zinc and 2.5% lead (Metal Bulletin, 1999b).

China's Xitianshan Mining Administration has increased its refined lead production capacity by 20,000 tons per year to a level of 50,000 tons per year, as a result of the opening of its expanded production facility in early August. The company plans to add another 20,000 tons of capacity by 2002, but expects to maintain exports at 50,000 tons per year, and use the additional production as a supply to domestic fabricators and lead alloy producers (Platt's Metals Week, 1999a).

### Update

The International Lead and Zinc Study Group at its 44<sup>th</sup> Session in Paris during October forecast world refined lead consumption to rise by 2.6% to 6.2 million tons in 1999, and by 1.8% to 6.3 million tons in 2000. With regard to the supply-demand balance, a modest surplus of refined lead was forecast for the Western World market in both 1999 and 2000 (International Lead and Zinc Study Group, 1999).

### References Cited

- American Metal Market, 1999, Auto battery shipments strong: American Metal Market, v. 107, no. 160, August 19, p. 4.
- International Lead and Zinc Study Group, 1999, ILZSG October session/forecasts: London, U.K., International Lead and Zinc Study Group press release, October 11, 5 p.
- International Lead Zinc Research Organization, Inc., 1999, USEPA seeks comments on lowering TRI reporting level for lead: International Lead Zinc Research Organization, Inc. Environmental Update, v. 9, no. 8, August, p. 1.
- Metal Bulletin, 1999a, Lead remains tight in the USA: Metal Bulletin, no. 8404, August 26, p. 11.
- 1999b, Union Itok signs agreement for Iranian deposit: Metal Bulletin, no. 8399, August 8, p. 5.
- Platt's Metals Week, 1999a, China's Xitianshan starts up new 20,000mt lead line: Platt's Metals Week, v. 70, no. 33, August 16, p. 10.
- 1999b, Peñoles clean-up operations ahead of schedule: Platt's Metals Week, v. 70, no. 31, August 2, p. 12.
- Ryan's Notes, 1999, East Helena may stop lead production: Ryan's Notes, v. 5, no. 31, August 2, p. 5.
- U.S. Environmental Protection Agency, 1999a, Lead and lead compounds—Lowering of reporting thresholds—Community right-to-know toxic chemical release reporting—Proposed rule: Federal Register, v. 64, no. 148, p. 42221-42243.
- 1999b, Request for information concerning transfrontier movements of wastes destined for recovery operations within the OECD area: Federal Register, v. 64, no. 158, August 17, p. 44722-44730.

TABLE 1  
SALIENT LEAD STATISTICS IN THE UNITED STATES 1/

(Metric tons)

	1998		1999		
	Year total	January - August	July	August	January - August
Production:					
Mine (recoverable)	481,000	287,000	47,200	NA	305,000 2/
Primary refinery	337,000	NA	NA	NA	NA
Secondary refinery:					
Reported by smelters/refineries	1,100,000	713,000	78,800	89,700	689,000
Estimated	--	12,100	1,190	907	10,700
Recovered from copper-base scrap e/	16,800	10,000	1,250	1,250	10,000
Total secondary	1,120,000	736,000	81,300	91,900	710,000
Stocks, end of period:					
Primary refineries	10,900 3/	XX	NA	NA	XX
Secondary smelters and consumers	77,300 3/	XX	65,900 r/	68,400	XX
Imports for consumption:					
Ore and concentrates (lead content)	32,700	15,400	230	NA	2,720 2/
Refined metal	267,000	171,000	22,700	NA	155,000 2/
Consumption:					
Reported	1,630,000	1,010,000 r/	130,000 r/	130,000	1,060,000
Undistributed e/	--	31,100 r/	6,870 r/	6,830	55,600
Total	1,630,000	1,040,000 r/	137,000 r/	137,000	1,110,000
Exports (lead content):					
Ore and concentrates	72,400	47,900	26,200	NA	36,500 2/
Bullion	51,600	30,900	4,340	NA	35,600 2/
Materials excluding scrap	39,600	26,100	4,590	NA	20,700 2/
Ash and residues	9,030	5,550	344	NA	1,170 2/
TEL/TML preparations, based on lead compounds	3,180	1,880	10	NA	1,790 2/
Exports (gross weight): Scrap	99,200	62,800	9,700	NA	62,200 2/
Platt's Metals Week North American producer price (cents per pound)	45.27	45.31	43.70	43.72	43.74

e/ Estimated. r/ Revised. NA Not available. XX Not applicable.

1/ Data are rounded to three significant digits, except prices; may not add to totals shown.

2/ Includes data for January - July only; August data not available at time of publication.

3/ Stocks at end of year.

TABLE 2  
MONTHLY AVERAGE LEAD PRICES

	North American producer price cents/lb	LME		Sterling exchange rate dollars/£
		\$/metric ton	£/metric ton	
1998:				
August	45.25	536.28	328.16	1.634205
January - August	45.31	541.46	328.70	1.647060
Year	45.27	528.22	318.86	1.657086
1999:				
May	43.84	541.12	334.97	1.615410
June	43.70	495.75	310.81	1.595018
July	43.70	495.46	314.56	1.575086
August	43.72	502.66	312.97	1.606100
January - August	43.74	508.33	315.34	1.612397

Source: Platt's Metals Week.

TABLE 3  
CONSUMPTION OF PURCHASED LEAD-BASE SCRAP IN AUGUST 1999 1/

(Metric tons, gross weight)

Item	Stocks July 31, 1999	Net receipts	Consumption	Stocks August 31, 1999
Battery-lead	25,100 r/	93,800	94,500	24,500
Soft lead	W	W	W	W
Drosses and residues	3,120 r/	4,840	4,790	3,170
Other 2/	1,760 r/	2,090	2,260	1,590
Total	30,000 r/	101,000	102,000	29,200
Percent change from preceding month	XX	-5.3	-2.0	-2.6

r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Other." XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes solder, common babbitt, antimonial lead, cable covering, type metals, and other lead-base scrap not elsewhere classified.

TABLE 4  
LEAD, TIN, AND ANTIMONY RECOVERED FROM LEAD-BASE  
SCRAP IN AUGUST 1999 1/

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	50,300	--	--
Remelt lead	W	W	W
Antimonial lead	38,900	W	W
Other 2/	W	W	--
Total lead-base	89,700	103	393

W Withheld to avoid disclosing company proprietary data; included in "Total."

1/ Data are rounded to three significant digits.

2/ Includes cable lead, lead-base babbitt, solder, type metals, and other products.

TABLE 5  
CONSUMPTION OF LEAD IN THE UNITED STATES 1/

(Metric tons, lead content)

Uses	1998		1999		
	Year total	January - August	July	August	January - August
<b>Metal products:</b>					
Ammunition, shot and bullets	52,800	26,200 r/	2,510 r/	3,980	28,300
Brass and bronze, billet and ingots	3,460	3,670	437	484	3,730
Cable covering, power and communication and calking lead, building construction	5,980	4,340	340 r/	168	1,840
Casting metals	32,600	3,550 r/	373 r/	380	3,160
Pipes, traps, and other extruded products	W	W	W	W	W
Sheet lead	18,700	11,400 r/	1,400 r/	1,450	10,800
Solder	10,900	4,640	742 r/	1,100	6,450
Storage batteries, including oxides	1,430,000	899,000 r/	119,000 r/	117,000	956,000
Terne metal, type metal, and other metal products 3/	10,400	6,060 r/	207 r/	183	1,690
Total metal products	1,560,000	959,000 r/	125,000 r/	125,000	1,010,000
Other oxides	(4/)	(4/)	(4/)	(4/)	(4/)
Miscellaneous uses	69,000	47,300 r/	5,750 r/	5,020	43,800
Total reported	1,630,000	1,010,000 r/	130,000 r/	130,000	1,060,000
Undistributed consumption e/	--	31,100 r/	6,870 r/	6,830	55,600
Grand total	1,630,000	1,040,000 r/	137,000 r/	137,000	1,110,000

e/ Estimated. r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Sheet lead."

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes annual data.

3/ Includes lead consumed in foil, collapsible tubes, annealing, plating, galvanizing, and fishing weights.

4/ Withheld to avoid disclosing company proprietary data; included with "Miscellaneous uses."

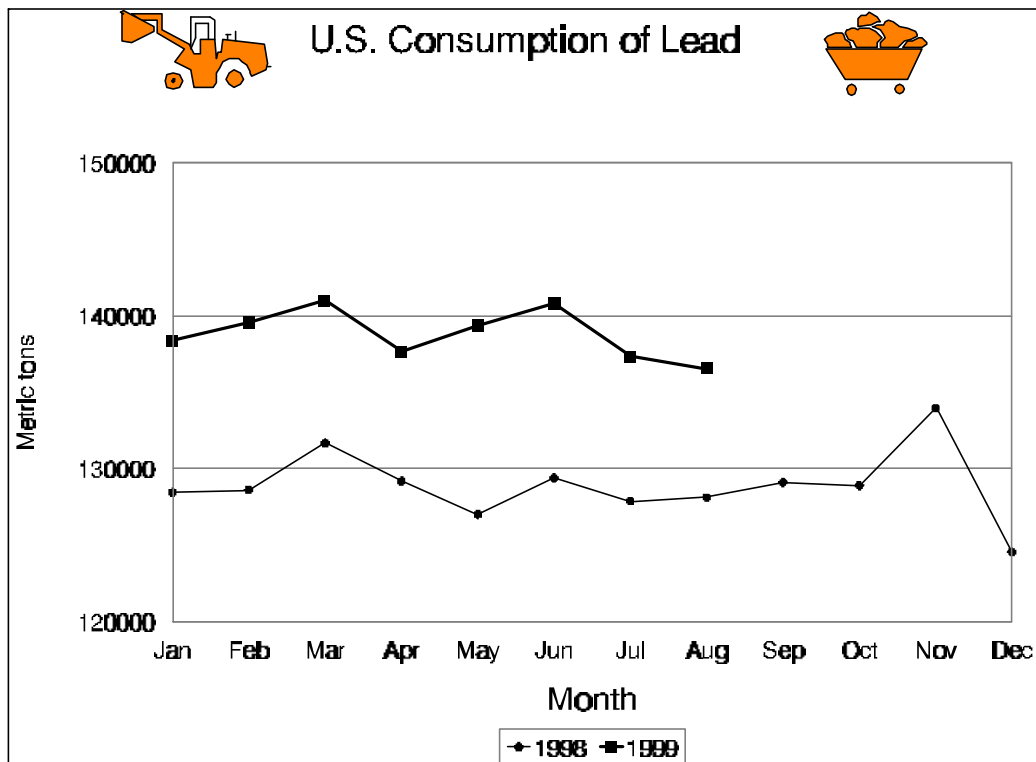


TABLE 6  
CONSUMER AND SECONDARY SMELTER STOCKS, RECEIPTS, AND  
CONSUMPTION OF LEAD IN AUGUST 1999 1/

(Metric tons, lead content)

Type of material	Stocks July 31, 1999	Net receipts	Consumption	Stocks August 31, 1999
Soft lead	29,900 r/	74,700	74,400	30,200
Antimonial lead	29,100 r/	34,100	32,400	30,800
Lead alloys	W	23,000	22,500	W
Copper-base scrap	W	390	386	W
Total	65,900 r/	132,000	130,000	68,400

r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Total."

1/ Data are rounded to three significant digits; may not add to totals shown.

TABLE 7  
U.S. EXPORTS OF LEAD, BY CLASS 1/

(Metric tons)

	1998		1999		
	Year total	July	June	July	January - July
Lead content:					
Ore and concentrates	72,400	519	1,800	26,200	36,500
Bullion	51,600	5,800	7,450	4,340	35,600
Materials excluding scrap	39,600	4,300	2,040	4,590	20,700
Ash and residues	9,030	1,590	10	344	1,170
TEL/TML preparations, based on lead compounds	3,180	347	191	10	1,790
Total	176,000	12,600	11,500	35,500	95,700
Gross weight: Scrap	99,200	9,210	9,650	9,700	62,200

1/ Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.

TABLE 8  
U.S. IMPORTS OF LEAD BY TYPE OF MATERIALS AND BY COUNTRY OF ORIGIN 1/

(Metric tons, lead content)

Country of origin	General imports					Imports for consumption				
	1998		1999			1998		1999		
	January -		January -			January -		January -		
	Year total	July	June	July	July	Year total	July	June	July	July
Ore, matte, etc.:										
Canada	32,000	32,000	--	--	1,220	6,540	6,540	--	--	--
Mexico	--	--	544	230	774	--	--	544	230	774
Peru	35,800	8,830	554	515	3,260	18,500	3,990	--	--	--
Other	21,000 r/	6,490 r/	5,020 r/	47	13,400	7,670	3,710	(2/)	--	1,860
Total	88,800	47,300	6,120	792	18,600	32,700	14,200	544	230	2,720
Base bullion:										
Dominican Republic	464	280	--	--	--	464	280	--	--	--
Pigs and bars:										
Australia	--	--	6,100	5,100	11,200	--	--	6,100	5,100	11,200
Belgium	30	30	13	--	13	30	30	13	--	13
Canada	181,000	103,000	16,200	14,700	114,000	181,000	103,000	16,200	14,700	114,000
Germany	135	37	50	150	376	135	37	50	150	376
Mexico	63,600	42,600	1,470	935	21,500	63,600	42,600	1,470	935	21,500
Peru	11,400	1,400	2,110	--	2,650	11,400	1,400	2,110	--	2,650
Other	10,100	404 r/	318 r/	1,640	4,820	10,100 r/	404 r/	318 r/	1,820	4,990
Total	267,000	148,000	26,200	22,500	154,000	267,000	148,000	26,200	22,700	155,000
Reclaimed scrap, including ash and residues	(3/)	(3/)	--	--	--	(3/)	(3/)	--	--	--
Grand total	356,000	195,000	32,300	23,300	173,000	300,000	162,000	26,800	22,900	157,000

r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Revised to zero.

3/ Less than 1/2 unit.

Source: Bureau of the Census.